



SEQUENCE LISTING

<110> Welcher, Andrew  
Wen, Duanzhi  
Kelly, Michael

<120> Interferon-Like Molecules and Uses Thereof

<130> 99,372-F

<140> 09/927,850

<141> 2001-08-10

<150> 09/724,860

<151> 2000-11-28

<150> 60/169,720

<151> 1999-12-08

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<170> PatentIn Ver. 2.0

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Glu Glu Arg Leu Glu Arg Ile Arg Ser Gly Leu Phe Lys Gln Val Gln	
100 105 110	
caa gct cga gag tgc atg gta gac gag gag aac aag aac acg gag gag	442
Gln Ala Arg Glu Cys Met Val Asp Glu Glu Asn Lys Asn Thr Glu Glu	
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135 140 145	
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Leu Glu Leu Asn Lys Tyr Phe Phe Arg Ile Arg Lys Phe Leu Val Asn	
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Arg Cys Phe Ser Ile Phe Tyr Lys Leu Leu Asn Met Asn	
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Glu Asn Met Lys Leu Leu Ser Ser Ile Arg Thr Thr Phe Pro Leu Arg	
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ggc acc cta tcc ctg gac tgt aac tta ctg aac gtt cac ctg aga aga 691		
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Ser Ser Met Ser Asn Ser Phe Pro Val Glu Cys Leu Arg Glu Asn Ile  
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Ala Phe Glu Leu Pro Gln Glu Phe Leu Gln Tyr Thr Gln Pro Met Lys  
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Ile Phe Ser Gln His Thr Phe Lys Tyr Trp Lys Glu Arg His Leu Lys  
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Gln Ile Gln Ile Gly Leu Asp Gln Gln Ala Glu Tyr Leu Asn Gln Cys  
115 120 125  
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130 135 140  
Asn Glu Met Lys Pro Ser Glu Ala Arg Val Pro Gln Leu Ser Ser Leu  
145 150 155 160  
Glu Leu Arg Arg Tyr Phe His Arg Ile Asp Asn Phe Leu Lys Glu Lys  
165 170 175  
Lys Tyr Ser Asp Cys Ala Trp Glu Ile Val Arg Val Glu Ile Arg Arg  
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Glu Asn Ile Ala Phe Glu Leu Pro Gln Glu Phe Leu Gln Tyr Thr Gln  
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Pro Met Lys Arg Asp Ile Lys Lys Ala Phe Tyr Glu Met Ser Leu Gln  
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Ala Phe Asn Ile Phe Ser Gln His Thr Phe Lys Tyr Trp Lys Glu Arg  
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His Leu Lys Gln Ile Gln Ile Gly Leu Asp Gln Gln Ala Glu Tyr Leu  
85 90 95

Asn Gln Cys Leu Glu Glu Asp Glu Asn Glu Asn Glu Asp Met Lys Glu  
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Met Lys Glu Asn Glu Met Lys Pro Ser Glu Ala Arg Val Pro Gln Leu  
115 120 125

Ser Ser Leu Glu Leu Arg Arg Tyr Phe His Arg Ile Asp Asn Phe Leu  
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Arg Lys

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Ser Ser Asn Phe Gln Cys Gln Lys Leu Leu Trp Gln Leu Asn Gly Arg  
35 40 45

Leu Glu Tyr Cys Leu Lys Asp Arg Met Asn Phe Asp Ile Pro Glu Glu

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Ser Thr Gly Trp Asn Glu Thr Ile Val Glu Asn Leu Leu Ala Asn Val		
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Tyr His Gln Ile Asn His Leu Lys Thr Val Leu Glu Glu Lys Leu Glu		
115	120	125
Lys Glu Asp Phe Thr Arg Gly Lys Leu Met Ser Ser Leu His Leu Lys		
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Arg Tyr Tyr Gly Arg Ile Leu His Tyr Leu Lys Ala Lys Glu Tyr Ser		
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polypeptide cDNA insert and partial pAMG21 vector		
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acg gat ttt gag ttt cct caa gag att ctg ctg tac gtc cag cat gtg 144		
Thr Asp Phe Glu Phe Pro Gln Glu Ile Leu Leu Tyr Val Gln His Val		
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Lys Lys Asp Ile Lys Ala Val Thr Tyr His Ile Ser Ser Leu Ala Leu		
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80 85 90 95	
gag tgc atg gta gac gag gag aac aag aac acg gag gag gac agt aca Glu Cys Met Val Asp Glu Glu Asn Lys Asn Thr Glu Glu Asp Ser Thr	336
100 105 110	
tca caa cat cct cac tca gag ggc ttc aag gca gtc tac ctg gaa ttg Ser Gln His Pro His Ser Glu Gly Phe Lys Ala Val Tyr Leu Glu Leu	384
115 120 125	
aac aag tat ttc ttc aga atc aga aag ttc ctg gta aat aag aaa tac Asn Lys Tyr Phe Phe Arg Ile Arg Lys Phe Leu Val Asn Lys Lys Tyr	432
130 135 140	
agt ttc tgt gcc tgg aag att gtc gtg gtg gaa att cgt cgt tgt ttc Ser Phe Cys Ala Trp Lys Ile Val Val Val Glu Ile Arg Arg Cys Phe	480
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 polypeptide cDNA insert and partial pAMG21 vector  
 sequence

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Lys Asp Ile Lys Ala Val Thr Tyr His Ile Ser Ser Leu Ala Leu Ile	60
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90

95

Cys Met Val Asp Glu Glu Asn Lys Asn Thr Glu Glu Asp Ser Thr Ser  
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Gln His Pro His Ser Glu Gly Phe Lys Ala Val Tyr Leu Glu Leu Asn  
 115 120 125

Lys Tyr Phe Phe Arg Ile Arg Lys Phe Leu Val Asn Lys Lys Tyr Ser  
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Phe Cys Ala Trp Lys Ile Val Val Val Glu Ile Arg Arg Cys Phe Ser  
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Ile Phe Tyr Lys Leu Leu Asn Met Asn  
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&lt;211&gt; 520

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&lt;213&gt; Artificial Sequence

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 polypeptide cDNA insert and partial pAMG21 vector  
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 Thr Asp Phe Glu Phe Pro Gln Glu Ile Leu Leu Tyr Val Gln His Val  
 35 40 45

aaa aag gac atc aag gca gtc acc tat cat atc tct tct ctg gcg ctg 192  
 Lys Lys Asp Ile Lys Ala Val Thr Tyr His Ile Ser Ser Leu Ala Leu  
 50 55 60

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 65 70 75

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 80 85 90 95

gag tgc atg gta gac gag gag aac aag aac acg gag gag gac agt aca	336	
Glu Cys Met Val Asp Glu Glu Asn Lys Asn Thr Glu Glu Asp Ser Thr		
100	105	110
tca caa cat cct cac tca gag ggc ttc aag gca gtc tac ctg gaa ttg	384	
Ser Gln His Pro His Ser Glu Gly Phe Lys Ala Val Tyr Leu Glu Leu		
115	120	125
aac aag tat ttc ttc cgt atc cgt aag ttc ctg gta aat aag aaa tac	432	
Asn Lys Tyr Phe Phe Arg Ile Arg Lys Phe Leu Val Asn Lys Lys Tyr		
130	135	140
agt ttc tgt gcc tgg aag att gtc gtg gaa att cgt cgt tct ttc	480	
Ser Phe Cys Ala Trp Lys Ile Val Val Val Glu Ile Arg Arg Ser Phe		
145	150	155
agt att ttt tac aaa ctg ctg aac atg aat taatggatcc	520	
Ser Ile Phe Tyr Lys Leu Leu Asn Met Asn		
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 polypeptide cDNA insert and partial pAMG21 vector  
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Asp Phe Glu Phe Pro Gln Glu Ile Leu Leu Tyr Val Gln His Val Lys			
35	40	45	
Lys Asp Ile Lys Ala Val Thr Tyr His Ile Ser Ser Leu Ala Leu Ile			
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Ile Phe Ser Leu Lys Asp Ser Ile Ser Leu Ala Thr Glu Glu Arg Leu			
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Glu Arg Ile Arg Ser Gly Leu Phe Lys Gln Val Gln Gln Ala Arg Glu			
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Cys Met Val Asp Glu Glu Asn Lys Asn Thr Glu Glu Asp Ser Thr Ser			
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Gln His Pro His Ser Glu Gly Phe Lys Ala Val Tyr Leu Glu Leu Asn			
115	120	125	
Lys Tyr Phe Phe Arg Ile Arg Lys Phe Leu Val Asn Lys Lys Tyr Ser			

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Met	Cys	Asn	Leu	Leu	Asn	Val	His	Leu	Arg							
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<400> 12																
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Arg	Val	Thr	Trp	Gln	Asn	Leu	Arg	His	Leu	Ser	Ser	Met	Ser	Asn	Ser	
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ttt	cct	gta	gaa	tgt	cta	cga	gaa	aac	ata	gct	ttt	gag	ttg	ccc	caa	147
Phe	Pro	Val	Glu	Cys	Leu	Arg	Glu	Asn	Ile	Ala	Phe	Glu	Leu	Pro	Gln	
30																40
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gag	ttt	ctg	caa	tac	acc	caa	cct	atg	aag	agg	gac	atc	aag	aag	gcc	195
Glu	Phe	Leu	Gln	Tyr	Thr	Gln	Pro	Met	Lys	Arg	Asp	Ile	Lys	Lys	Ala	
45																55
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Phe	Tyr	Glu	Met	Ser	Leu	Gln	Ala	Phe	Asn	Ile	Phe	Ser	Gln	His	Thr	
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Phe	Lys	Tyr	Trp	Lys	Glu	Arg	His	Leu	Lys	Gln	Ile	Gln	Ile	Gly	Leu	
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gat	cag	caa	gca	gag	tac	ctg	aac	caa	tgc	ttg	gag	gaa	gac	gag	aat	339
Asp	Gln	Gln	Ala	Glu	Tyr	Leu	Asn	Gln	Cys	Leu	Glu	Glu	Asp	Glu	Asn	
95																105
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gaa	aat	gaa	gac	atg	aaa	gaa	atg	aaa	gag	aat	gag	atg	aaa	ccc	tca	387
Glu	Asn	Glu	Asp	Met	Lys	Glu	Met	Lys	Glu	Asn	Glu	Met	Lys	Pro	Ser	
110																120
<400> 12																
gaa	gcc	agg	gtc	ccc	cag	ctg	agc	agc	ctg	gaa	ctg	agg	aga	tat	ttc	435

Glu	Ala	Arg	Val	Pro	Gln	Leu	Ser	Ser	Leu	Glu	Leu	Arg	Arg	Tyr	Phe	
125						130				135						
cac agg ata gac aat ttc ctg aaa gaa aag aaa tac agt gac tgt gcc															483	
His	Arg	Ile	Asp	Asn	Phe	Leu	Lys	Glu	Lys	Lys	Tyr	Ser	Asp	Cys	Ala	
140						145				150						
tgg gag att gtc cga gtg gaa atc cgt cgt tgc ctg tac tac ttt tac															531	
Trp	Glu	Ile	Val	Arg	Val	Glu	Ile	Arg	Arg	Cys	Leu	Tyr	Tyr	Phe	Tyr	
155						160				165					170	
aaa ttt acc gct ctg ttc cgt cgt aaa taatggatcc															568	
Lys	Phe	Thr	Ala	Leu	Phe	Arg	Arg	Lys								
175																
<210> 13																
<211> 179																
<212> PRT																
<213> Artificial Sequence																
<220>																
<223> Description of Artificial Sequence: Rat IFN-like																
polypeptide cDNA insert and partial pAMG21 vector																
sequence																
<400> 13																
Met	Cys	Asn	Leu	Leu	Asn	Val	His	Leu	Arg	Arg	Val	Thr	Trp	Gln	Asn	
1					5				10					15		
Leu																
Arg																
His																
Leu																
Ser																
Ser																
Met																
Ser																
Asn																
Ser																
Phe																
Pro																
Gln																
Glu																
Cys																
Leu																
20																
25																
30																
Arg																
Glu																
Asn																
Ile																
Ala																
Phe																
Glu																
Leu																
Pro																
Gln																
Glu																
Phe																
Leu																
Gln																
Tyr																
Thr																
35																
40																
45																
Gln																
Pro																
Met																
Lys																
Arg																
Asp																
Ile																
Lys																
Lys																
Ala																
Phe																
Tyr																
Glu																
Met																
Ser																
Leu																
Asn																
Gln																
Cys																
Leu																
Glu																
Asp																
Glu																
Asn																
Glu																
Asp																
Met																
Lys																
100																
105																
110																
Glu																
Met																
Lys																
Glu																
Asn																
Glu																
Asn																
Glu																
Asp																
Met																
Lys																
115																
120																
125																
Leu																
Ser																
Ser																
Leu																
Glu																
Leu																
Arg																
Arg																
Tyr																
Phe																
His																
Arg																
Ile																
Asp																
Asn																
Phe																
130																
135																
140																
Leu																
Lys																
Glu																
Lys																
Tyr																
Ser																
Asp																
Cys																
Ala																
Trp																
Glu																
Ile																
Val																
Arg																
Val																
145																
150																
155																
160																

Glu Ile Arg Arg Cys Leu Tyr Tyr Phe Tyr Lys Phe Thr Ala Leu Phe  
165 170 175

Arg Arg Lys

<210> 14  
<211> 568  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Human IFN-like  
polypeptide cDNA insert and partial pAMG21 vector  
sequence

<220>  
<221> CDS  
<222> (22)..(558)

<400> 14  
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Met Cys Asn Leu Leu Asn Val His Leu Arg  
1 5 10

cgt gtt acc tgg caa aat ctg aga cat ctg agt agt atg agc aat tca 99  
Arg Val Thr Trp Gln Asn Leu Arg His Leu Ser Ser Met Ser Asn Ser  
15 20 25

ttt cct gta gaa tgt cta cga gaa aac ata gct ttt gag ttg ccc caa 147  
Phe Pro Val Glu Cys Leu Arg Glu Asn Ile Ala Phe Glu Leu Pro Gln  
30 35 40

gag ttc ctg caa tac acc caa cct atg aag agg gac atc aag aag gcc 195  
Glu Phe Leu Gln Tyr Thr Gln Pro Met Lys Arg Asp Ile Lys Lys Ala  
45 50 55

ttc tat gaa atg tcc cta cag gcc ttc aac atc ttc agc caa cac acc 243  
Phe Tyr Glu Met Ser Leu Gln Ala Phe Asn Ile Phe Ser Gln His Thr  
60 65 70

ttc aaa tat tgg aaa gag aga cac ctc aaa caa atc caa ata gga ctt 291  
Phe Lys Tyr Trp Lys Glu Arg His Leu Lys Gln Ile Gln Ile Gly Leu  
75 80 85 90

gat cag caa gca gag tac ctg aac caa tgc ttg gag gaa gac gag aat 339  
Asp Gln Gln Ala Glu Tyr Leu Asn Gln Cys Leu Glu Glu Asp Glu Asn  
95 100 105

gaa aat gaa gac atg aaa gaa atg aaa gag aat gag atg aaa ccc tca 387  
Glu Asn Glu Asp Met Lys Glu Met Lys Glu Asn Glu Met Lys Pro Ser  
110 115 120

gaa gcc agg gtc ccc cag ctg agc agc ctg gaa ctg agg aga tat ttc 435  
Glu Ala Arg Val Pro Gln Leu Ser Ser Leu Glu Leu Arg Arg Tyr Phe  
125 130 135



Arg Arg Lys

<210> 16  
<211> 556  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
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polypeptide cDNA insert and partial pAMG21 vector  
sequence  
  
<220>  
<221> CDS  
<222> (1)..(546)  
  
<400> 16  
cat atg ctg gac tgt aac ctg ctg aac gtt cac ctg cgt cgt gtt acc 48  
His Met Leu Asp Cys Asn Leu Leu Asn Val His Leu Arg Arg Val Thr  
1 5 10 15  
tgg caa aat ctg aga cat ctg agt agt atg agc aat tca ttt cct gta 96  
Trp Gln Asn Leu Arg His Leu Ser Ser Met Ser Asn Ser Phe Pro Val  
20 25 30  
gaa tgt cta cga gaa aac ata gct ttt gag ttg ccc caa gag ttt ctg 144  
Glu Cys Leu Arg Glu Asn Ile Ala Phe Glu Leu Pro Gln Glu Phe Leu  
35 40 45  
caa tac acc caa cct atg aag agg gac atc aag aag gcc ttc tat gaa 192  
Gln Tyr Thr Gln Pro Met Lys Arg Asp Ile Lys Lys Ala Phe Tyr Glu  
50 55 60  
atg tcc cta cag gcc ttc aac atc ttc agc caa cac acc ttc aaa tat 240  
Met Ser Leu Gln Ala Phe Asn Ile Phe Ser Gln His Thr Phe Lys Tyr  
65 70 75 80  
tgg aaa gag aga cac ctc aaa caa atc caa ata gga ctt gat cag caa 288  
Trp Lys Glu Arg His Leu Lys Gln Ile Gln Ile Gly Leu Asp Gln Gln  
85 90 95  
gca gag tac ctg aac caa tgc ttg gag gaa gac gag aat gaa aat gaa 336  
Ala Glu Tyr Leu Asn Gln Cys Leu Glu Glu Asp Glu Asn Glu Asn Glu  
100 105 110  
gac atg aaa gaa atg aaa gag aat gag atg aaa ccc tca gaa gcc agg 384  
Asp Met Lys Glu Met Lys Glu Asn Glu Met Lys Pro Ser Glu Ala Arg  
115 120 125  
gtc ccc cag ctg agc agc ctg gaa ctg agg aga tat ttc cac agg ata 432  
Val Pro Gln Leu Ser Ser Leu Glu Leu Arg Arg Tyr Phe His Arg Ile  
130 135 140  
gac aat ttc ctg aaa gaa aag aaa tac agt gac tgt gcc tgg gag att 480

Asp Asn Phe Leu Lys Glu Lys Lys Tyr Ser Asp Cys Ala Trp Glu Ile			
145	150	155	160
gtc cga gtg gaa atc cgt cgt tgc ctg tac tac ttt tac aaa ttt acc			528
Val Arg Val Glu Ile Arg Arg Cys Leu Tyr Tyr Phe Tyr Lys Phe Thr			
165	170	175	
gct ctg ttc cgt cgt aaa taatggatcc			556
Ala Leu Phe Arg Arg Lys			
180			
<210> 17			
<211> 182			
<212> PRT			
<213> Artificial Sequence			
<220>			
<223> Description of Artificial Sequence: Human IFN-like			
polypeptide cDNA insert and partial pAMG21 vector			
sequence			
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His Met Leu Asp Cys Asn Leu Leu Asn Val His Leu Arg Arg Val Thr			
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Trp Gln Asn Leu Arg His Leu Ser Ser Met Ser Asn Ser Phe Pro Val			
20	25	30	
Glu Cys Leu Arg Glu Asn Ile Ala Phe Glu Leu Pro Gln Glu Phe Leu			
35	40	45	
Gln Tyr Thr Gln Pro Met Lys Arg Asp Ile Lys Lys Ala Phe Tyr Glu			
50	55	60	
Met Ser Leu Gln Ala Phe Asn Ile Phe Ser Gln His Thr Phe Lys Tyr			
65	70	75	80
Trp Lys Glu Arg His Leu Lys Gln Ile Gln Ile Gly Leu Asp Gln Gln			
85	90	95	
Ala Glu Tyr Leu Asn Gln Cys Leu Glu Glu Asp Glu Asn Glu			
100	105	110	
Asp Met Lys Glu Met Lys Glu Asn Glu Met Lys Pro Ser Glu Ala Arg			
115	120	125	
Val Pro Gln Leu Ser Ser Leu Glu Leu Arg Arg Tyr Phe His Arg Ile			
130	135	140	
Asp Asn Phe Leu Lys Glu Lys Lys Tyr Ser Asp Cys Ala Trp Glu Ile			
145	150	155	160
Val Arg Val Glu Ile Arg Arg Cys Leu Tyr Tyr Phe Tyr Lys Phe Thr			
165	170	175	
Ala Leu Phe Arg Arg Lys			

<210> 18  
 <211> 11  
 <212> PRT  
 <213> Human immunodeficiency virus type 1

<400> 18  
 Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg  
 1 5 10

<210> 19  
 <211> 15  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Internalizing  
 domain derived from HIV tat protein

<400> 19  
 Gly Gly Gly Gly Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg  
 1 5 10 15

<210> 20  
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 <212> DNA  
 <213> Rattus norvegicus

<400> 20  
 atgacactga agtattttatg g 21

<210> 21  
 <211> 21  
 <212> DNA  
 <213> Rattus norvegicus

<400> 21  
 attcatgttg agtagtttg a 21

<210> 22  
 <211> 48  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: PCR primer  
 1825-22

<400> 22  
 gaataacata tgtgtgtata tctcgatcat actatcttgg agaatatg 48

<210> 23  
<211> 63  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: PCR primer  
1825-21

<400> 23  
ccgcggatcc attaattcat gttcagcagt ttgtaaaaaa tactgaaaca acgacgaatt 60  
tcc 63

<210> 24  
<211> 63  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: PCR primer  
1909-56

<400> 24  
ccgcggatcc attaattcat gttcagcagt ttgtaaaaaa tactgaaaga acgacgaatt 60  
tcc 63

<210> 25  
<211> 67  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: PCR primer  
1967-32

<400> 25  
ttgatctaga aaggaggaat aacatatgtg taacctgctg aacgttcacc tgcgtcgtgt 60  
tacctgg 67

<210> 26  
<211> 71  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: PCR primer  
1982-14

<400> 26  
ccgcggatcc attatttacg acgaaacaga gcggtaaatt tgtaaaagta gtacaggcaa 60

cgacgatttc c

71

<210> 27  
<211> 72  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: PCR primer  
1967-33

<400> 27  
ccgcggatcc attatttacg acggaacaga gcggtaaatt tgtaaaagta gtacagagaa 60

cgacggattt cc

72

<210> 28  
<211> 39  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: PCR primer  
2103-87

<400> 28  
aaggagcata tgctggactg taacctgctg aacgttcac

39

<210> 29  
<211> 20  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: PCR primer  
1200-54

<400> 29  
gttattgctc agcggtggca

20

<210> 30  
<211> 32  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: PCR primer  
1847-77

<400> 30  
cccaagctta ccatgacact gaagtattta tg

32

<210> 31  
<211> 33  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: PCR primer  
1847-78

<400> 31  
aaggaaaaaa gcggccgcat tcatgttgag tag 33

<210> 32  
<211> 35  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: PCR primer  
1896-56

<400> 32  
acgcgtcgac tcatcaattc atgttgagta gtttg 35

<210> 33  
<211> 39  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: PCR primer  
1896-57

<400> 33  
aaggaaaaaa gcggccgctc atcaattcat gttgagtag 39

<210> 34  
<211> 31  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: PCR primer  
1954-45

<400> 34  
acgcgtcgac ttattatttc ctccctgaata g 31

<210> 35  
<211> 42  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: PCR primer  
1954-46

<400> 35  
aaggaaaaaa gcggccgctt attatttcct cctgaataga gc 42

<210> 36  
<211> 33  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: PCR primer  
1955-44

<400> 36  
cccaagctta ccatgagcac caaacctgat atg 33

<210> 37  
<211> 34  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: PCR primer  
1954-47

<400> 37  
cccaagctta ccatgattca aaagtgtttg tggc 34

<210> 38  
<211> 53  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: PCR primer  
1954-48

<400> 38  
aaggaaaaaa gcggccgcgc ggcctcgat tttcctcctg aatagagctg taa 53

<210> 39  
<211> 41  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: PCR primer  
1954-49

<400> 39  
aaggaaaaaa gcggccgctt tcctcctgaa tagagctgta a

41